Electromedical Equipment and Analytical Instruments: 2005

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Current Industrial Reports

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These data are also available on Internet through the U.S. Department of Commerce and STAT-USA by subscription. The Internet address is: www.stat-usa.gov/. Follow the prompts to register. Also, you may call 202-482-1986 or 1-800-STAT-USA, for further information.

SUMMARY OF FINDINGS During 2005, the total value of shipments of electromedical equipment and analytical instruments totaled $30.4 billion, up 8.7 percent from the revised 2004 value of $28.0 billion. The 2005 data includes all other miscellaneous optical instruments and lenses, $2.0 billion, up 5.9 percent from 2004; electromedical equipment, including diagnostic, therapeutic, and patient monitoring equipment, excluding ionizing radiation equipment, $14.8 billion, an increase of 8.6 percent from 2004; analytical and scientific instruments (except optical), $8.1 billion, up 7.7 percent from 2004; irradiation (ionizing radiation) equipment, $5.6 billion, up 11.8 percent from 2004.

For general CIR information, explanation of general terms and historical note, see the appendix.

Address inquiries concerning these data to Investment Goods Industries Branch, Manufacturing and Construction Division (MCD), Washington, DC 20233-6900, or call Lindsay Peters, 301-763-4821.

For mail or fax copies of this publication, please contact the Information Services Center, MCD, Washington, DC 20233-6900, or call 301-763-4673.

U S C E N S U S B U R E A U

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Table 1. Value of Shipments of Electromedical Equipment and Analytical Instruments: 2000 to 2005
[Millions of dollars]

Product class code	Product description	2005	2004	2003	2002	2001	2000
3333143	All other miscellaneous optical instruments and lenses....	1,982.1	1,871.2	1,702.6	2,174.4	2,302.9	2,698.5
3345101	Electromedical equipment, including diagnostic, therapeutic, and patient monitoring equipment, excluding ionizing radiation equipment.....	14,778.9	r/ 13,611.1	11,747.0	12,125.7	11,088.3	10,896.7
3345160	Analytical and scientific instruments (except optical).....	8,126.2	r/ 7,544.6	7,918.2	7,271.9	7,873.3	6,808.2
3345170	Irradiation (ionizing radiation) equipment.....	5,558.5	4,971.2	4,873.5	4,524.2	4,283.5	3,502.1

r/Revised by 5 percent or more from previously published data.

Table 2. Quantity and Value of Shipments of Electromedical Equipment and Analytical Instruments: 2005 and 2004
[Quantity in number of units. Value in thousands of dollars]

Product code	Product description	No. of cos.	2005 Quantity		2005 Value		2004 Quantity		2004 Value
3333143	All other miscellaneous optical instruments and lenses	144	(X)	a/	1,982,070		(X)		1,871,170
3333143119	Binoculars and astronomical instruments, parts and accessories, including mountings	16	(X)	a/	96,527		(X)		72,153
3333143231	Optical test and inspection equipment	33	(X)	a/	260,086		(X)	r/	220,274
3333143232	Optical instruments used for inspecting semiconductors, wafers, and photo masks	5	(X)		38,218		(X)		(NA)
	Optical components:								
3333143235	Filters	30	(X)	a/	165,494		(X)		132,691
3333143237	Unmounted lenses	38	(X)		240,283		(X)	r/	248,332
3333143242	Mounted lenses	16	(X)		136,618		(X)		253,603
3333143243	Other optical components	45	(X)	b/	156,659		(X)	a/r/	155,797
3333143245	Other optical instruments	45	(X)		657,792		(X)		564,340
3333143251	Parts and accessories	27	(X)	c/	230,393		(X)		223,980
3345101	Electromedical equipment, including diagnostic, therapeutic, and patient monitoring equipment, excluding ionizing radiation equipment	130	(X)	a/	14,778,870		(X)	r/	13,611,108
	Medical diagnostic equipment:								
3345101106	Ultrasound scanning devices	10	a/ 64,254	b/	1,366,226		51,522	r/	1,145,505
3345101109	Electrocardiograph (EKG)	6	c/ 101,470		183,777	r/	95,159	r/	173,449
3345101124	All other medical diagnostic equipment	32	(X)		1,098,798		(X)		1,087,285
	Patient monitoring equipment:								
3345101227	Intensive care/coronary care units, including component modules such as temperature, blood pressure, and pulse	13	(X)		734,806		(X)		716,025
3345101233	Prenatal and respiratory monitoring	7	(X)	c/	84,801		(X)	c/	93,186
3345101237	All other patient monitoring	23	(X)	b/	688,232		(X)	a/	550,396
	Medical therapy equipment:								
3345101241	Ultrasound therapy	5	(X)		27,799		(X)	r/	24,790
3345101247	Defibrillators	8	350,976		2,566,351	r/	440,855	r/	2,324,983
3345101251	Dialyzers, including machines and equipment	4	(X)		713,920		(X)		673,179
3345101254	Medical laser equipment	10	(X)	b/	345,846		(X)	a/r/	411,901
3345101257	All other medical therapy equipment	30	(X)	a/	3,587,894		(X)		(D)
	Surgical systems:								
3345101361	Electrosurgical equipment	8	(X)		430,464		(X)	r/	350,693
3345101364	Heart-lung machines, excluding iron lungs	1	(D)		(D)		(D)		(D)
3345101367	Blood flow systems	6	(X)	b/	528,664		(X)	a/r/	444,325
3345101371	All other surgical support systems	16	(X)		(D)		(X)	b/r/	374,342
3345101374	Other electromedical and electrotherapeutic apparatus	9	(X)	b/	466,668		(X)	b/r/	401,511
3345101477	Electromedical and electrotherapeutic parts and accessories	29	(X)	a/	1,550,431		(X)	r/	1,267,158
3345160	Analytical and scientific instruments (except optical)	244	(X)	a/	8,126,200			a/r/	7,544,570
3345160111	Electrochemical instruments	33	(X)	b/	234,595		(X)	a/r/	241,064
3345160112	Chromatographic instruments	32	c/ 167,790		1,159,903	a/	166,203	r/	1,160,809
3345160134	Spectrophotometric instruments	55	(X)	a/	785,359		(X)	a/	765,799
3345160135	Thermal analysis instruments	10	(X)		283,189		(X)	r/	261,682
3345160145	Mass spectroscopy instruments	15	(X)	a/	345,289		(X)	r/	337,637
	Laboratory instrumentation, including instruments used in clinical laboratory for measuring, analyzing, and processing clinical specimens:								
3345160147	Chemistry: measure and identify substances, e.g., metabolites, enzymes and drugs	11	(D)		904,815		(D)		782,322
3345160149	Hematology: measure and identify substances or cells contained in blood or substances influencing the development and clotting of blood, e.g., blood cell counting coagulation factors	11	c/ 52,127	a/	760,931	c/	47,162	a/	650,383
3345160151	Microbiology: enumerate or identify pathogenic organisms or measure their susceptibility to antimicrobial agents	4	(D)		(D)		(D)	r/	96,890
3345160153	DNA sequencer	1	(D)		(D)		(D)		(D)
3345160154	DNA thermocycler	-	-		-		-		-
3345160155	Blood bank and immunology: process blood and specimens for testing; measure and identify, using immunoassay, substances in clinical specimens	6	4,869		276,047		4,651		204,003
3345160160	Other clinical laboratory instrumentation	12	a/ 21,242	a/	254,207	b/r/	19,535	r/	235,648
3345160161	Amino acid, protein and/or peptide analyzers	8	(X)		(D)		(X)		(D)
3345160162	Organic elemental analysis instruments (carbon, hydrogen, nitrogen, oxygen, sulphur)	11	c/ 15,034	b/	146,301	b/	13,868	b/	130,443
3345160163	Gas detectors	21	(X)	b/	133,562		(X)	a/	128,435

Table 2. Quantity and Value of Shipments of Electromedical Equipment and Analytical Instruments: 2005 and 2004
[Quantity in number of units. Value in thousands of dollars]

Product code	Product description	No. of cos.	2005 Quantity		2005 Value		2004 Quantity		2004 Value
3345160165	Other analytical and scientific instruments	103	(X)	a/	1,179,515		(X)	a/	1,185,938
3345160167	Parts: components and accessories for analytical and scientific instruments, sold separately	96	(X)	a/	1,354,866		(X)	a/r/	1,229,929
3345170	Irradiation (ionizing radiation) equipment	63	(X)	a/	5,558,548		(X)		4,971,187
	Medical diagnostic equipment:								
	Medical X-ray equipment:								
3345170103	Digital radiography equipment	4	(D)		(D)	r/	2,929	r/	192,415
3345170106	Computerized axial tomography (CT or CAT scan)	5	2,271		1,512,896	r/	1,747	r/	1,207,050
3345170112	All other medical diagnostic X-ray equipment, including dental and conventional	23	(X)		1,178,684		(X)		(D)
3345170115	Nuclear medicine equipment	8	17,881		519,748	r/	16,951	r/	508,366
	Other irradiation apparatus:								
3345170121	Industrial and scientific X-ray equipment	14	c/ 6,368	b/	372,161	b/r/	4,591	a/r/	303,699
3345170124	X-ray tubes, sold separately	10	(X)		(D)		(X)		(D)
3345170332	Other irradiation equipment, including parts and accessories for X-ray equipment	29	(X)	b/	1,421,095		(X)		(D)

- Represents zero. D Withheld to avoid disclosing data for individual companies. NA Not available. r/Revised by 5 percent or more from previously publised data. X Not applicable.

Note: Percent of estimation for each item is indicated as follows: a/10 to 25 percent of this item is estimated. b/26 to 50 percent of this item is estimated. c/Over 50 percent of this item is estimated.

Table 3. Shipments, Exports, and Imports of Electromedical Equipment and Analytical Instruments: 2005
[Value in thousands of dollars]

Product code	Product description	Manufacturers' shipments (value of f.o.b. plant)	Exports of domestic merchandise (value at port) 1/	Imports for consumption (value) 2/ 3/
3333143119	Binoculars and astronomical instruments, parts and accessories, including mountings	96,527	132,901	274,466
3333143231, 235, 237, 242, 243, 245, 251	Optical instruments and lenses	1,847,325	2,038,546	509,299
3345101106	Ultrasound scanning devices, medical diagnostic	1,366,226	638,775	273,724
3345101109	Electrocardiograph (EKG), medical diagnostic	183,777	58,972	24,639
3345101124	All other medical diagnostic equipment	1,098,798	1,618,051	1,314,771
3345101247, 254, 257	Therapeutic electromedical equipment	6,500,091	642,593	1,362,759
3345101227, 233, 237	Patient monitoring equipment	1,507,839	258,090	340,702
3345101241	Ultrasound therapy equipment	27,799	9,970	3,224
3345101251	Dialyzers, including machines and equipment	713,920	66,653	43,927
3345101361	Electrosurgical equipment	430,464	942,664	282,600
3345101367, 371, 374	Surgical systems equipment	(D)	358,957	481,122
3345101477	Electromedical and electrotherapeutic parts and accessories	1,550,431	895,856	1,263,636
3345160	Analytical and scientific instruments (except optical)	8,126,200	2,647,517	1,845,680
3345170106	Computerized axial tomography (CT or CAT scan)	1,512,896	454,154	529,647
3345170103, 112, 115, 332	Digital radiography, nuclear medicine, and other medical diagnostic X-ray and irradiation equipment, including parts and accessories for X-ray equipment	(D)	1,598,869	2,000,193
3345170121	Industrial and scientific X-ray equipment	372,161	316,153	120,063
3345170124	X-ray tubes, sold separately	(D)	242,499	273,080

D Withheld to avoid disclosing data for individual companies.

1/Source: Census Bureau report, EM 545 U.S. Exports.
2/Source: Census Bureau report, IM 145 U.S. Imports for Consumption.
3/Value represents c.i.f. (cost, insurance and freight) value at port of entry in the United States plus import duties.

Note: For comparison of the North American Industry Classification System (NAICS)-based product codes with Schedule B export codes, and HTSUSA import codes, see Table 4.

Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes, and HTSUSA Import Codes: 2005

Product code	Product description	Export code 1/	Import code 2/
3333143119	Binoculars and astronomical instruments, parts and accessories, including mountings	9005.10.0020 9005.10.0040 9005.10.0080 9005.80.4020 9005.80.4040 9005.80.6000 9005.90.0000	9005.10.0020 9005.10.0040 9005.10.0080 9005.80.4020 9005.80.4040 9005.80.6000 9005.90.4000 9005.90.8000
3333143231, 235, 237, 242, 243, 245, 251	Optical instruments and lenses	9011.10.0000 9011.20.0000 9011.80.0000 9011.90.0000 9031.41.0000 9031.90.0000	9011.10.4000 9011.10.8000 9011.20.4000 9011.20.8000 9011.80.0000 9011.90.0000 9031.41.0020 9031.41.0040 9031.41.0060 9031.90.4500 9031.90.5400 9031.90.5800
3345101106	Ultrasound scanning devices, medical diagnostic	9018.12.0000	9018.12.0000
3345101109	Electrocardiograph (EKG), medical diagnostic	9018.11.0040	9018.11.3000
3345101124	All other medical diagnostic equipment	9018.13.0000 9018.19.4000 9018.19.9530 9018.19.9535 9018.19.9550	9018.13.0000 9018.19.4000 9018.19.9530 9018.19.9535 9018.19.9550
3345101247, 254, 257	Therapeutic electromedical equipment	9018.90.7060 9021.50.0000	9018.20.0040 9018.90.6400 9018.90.7560 9021.50.0000
3345101227, 233, 237	Patient monitoring equipment	9018.19.5500	9018.19.5500
3345101241	Ultrasound therapy equipment	9018.90.7040	9018.90.7540
3345101251	Dialyzers, including machines and equipment	9018.90.7020	9018.90.7520
3345101361	Electrosurgical equipment	9018.90.6000	9018.90.6000
3345101367, 371 374	Surgical systems equipment	9018.20.0000 9018.90.7080	9018.20.0080 9018.90.7580
3345101477	Electromedical and electrotherapeutic parts and accessories	9018.11.0080 9018.19.7500 9018.19.9560 9018.90.7070	9018.11.9000 9018.19.7500 9018.19.9560 9018.90.7570
3345160	Analytical and scientific instruments (except optical)	9012.10.0000 9027.20.2000 9027.20.5030 9027.20.6050 9027.20.9000 9027.30.4040 9027.30.4080 9027.50.2000 9027.50.5000 9027.80.2000 9027.80.3100 9027.80.3200	9012.10.0000 9027.20.5030 9027.20.5050 9027.20.5060 9027.20.5080 9027.20.8030 9027.20.8060 9027.20.8090 9027.30.4040 9027.30.4080 9027.50.4015 9027.50.4020

Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes, and HTSUSA Import Codes: 2005

Product code	Product description	Export code 1/	Import code 2/
3345160	Analytical and scientific instruments (except optical) -- Continued	9027.80.3500 9027.80.8000	9027.80.4520 9027.80.4530 9027.80.4560 9027.80.4590 9027.80.8030 9027.80.8060 9027.80.8090 9027.90.8400 9027.90.8800
3345170106	Computerized axial tomography (CT or CAT scan).....	9022.12.0000	9022.12.0000
3345170103, 112, 115, 332	Digital radiography, nuclear medicine, and other medical diagnostic X-ray and irradiation equipment, including parts and accessories for X-ray equipment.....	9022.13.0000 9022.14.0000 9022.21.0000 9022.29.8000 9022.90.4000 9022.90.6000 9022.90.8000	9022.13.0000 9022.14.0000 9022.21.0000 9022.29.8000 9022.90.4000 9022.90.6000 9022.90.9500
3345170121	Industrial and scientific X-ray equipment.....	9022.19.0000	9022.19.0000
3345170124	X-ray tubes, sold separately.....	9022.30.0000	9022.30.0000

1/Source: 2005 edition, Harmonized System-based Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States.

2/Source: Harmonized Tariff Schedule of the United States, Annotated (2005).

Appendix.
General CIR Survey Information, Explanation of General Terms and Historical Note

GENERAL

The CIR program has been providing monthly, quarterly, and annual measures of industrial activity for many years. Since 1904, with its cotton and fats and oils surveys, the CIR program has formed an essential part of an integrated statistical system involving the quinquennial economic census, manufacturing sector, and the annual survey of manufactures. The CIR surveys, however, provide current statistics at a more detailed product level than either of the other two statistical programs.

The primary objective of the CIR program is to produce timely, accurate data on production and shipments of selected products. The data are used to satisfy economic policy needs and for market analysis, forecasting, and decision making in the private sector. The product-level data generated by these surveys are used extensively by individual firms, trade associations, and market analysts in planning or recommending marketing and legislative strategies, particularly if their industry is significantly affected by foreign trade. Although production and shipments information are the two most common data items collected, the CIR program collects other measures also such as inventories, orders, and consumption. These surveys measure manufacturing activity in important commodity areas such as textiles and apparel, chemicals, primary metals, computer and electronic components, industrial equipment, aerospace equipment, and consumer goods.

The CIR program uses a unified data collection, processing, and publication system. The U.S. Census Bureau updates the survey panels for most reports annually and reconciles the estimates to the results of the broader-based annual survey of manufactures and the economic census, manufacturing sector. The manufacturing sector provides a complete list of all producers of the products covered by the CIR program and serves as the primary source for CIR sampling. Where a small number of producers exist, CIR surveys cover all known producers of a product. However, when the number of producers is too large, cutoff and random sampling techniques are used. Surveys are continually reviewed and modified to provide the most up-to-date information on products produced. The CIR program includes a group of mandatory and voluntary surveys. Typically the monthly and quarterly surveys are conducted on a voluntary basis. Those companies that choose not to respond to the voluntary surveys are required to submit a mandatory annual counterpart corresponding to the more frequent survey.

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS), 1997

The adoption of the North American Industry Classification System (NAICS) in the 1997 Economic Census has had a major impact on the comparability of current and historic data. Approximately half of the industries in the manufacturing sector of NAICS do not have comparable industries in the Standard Industrial Classification (SIC) system that was used in the past.

While most of the change affecting the manufacturing sector was change within the sector, some industries left manufacturing and others came into manufacturing. Prominent among those that left manufacturing are logging and portions of publishing. Prominent among the industries that came into the manufacturing sector are bakeries, candy stores where candy is made on the premises, custom tailors, makers of custom draperies, and tire retreading. The net effect of the classification changes are such that if the 1997 value of shipments data for all manufacturers were tabulated on an SIC basis, it would be approximately 3 percent higher.

Listed below are the NAICS sectors:

21 Mining
22 Utilities
23 Construction
31-33 Manufacturing
42 Wholesale Trade
44-45 Retail Trade
48-49 Transportation and Warehousing
51 Information
52 Finance and Insurance
53 Real Estate and Rental and Leasing
54 Professional, Scientific, and Technical Services
55 Management of Companies and Enterprises
56 Administrative and Support and Waste Management and Remediation Services
61 Educational Services
62 Health Care and Social Assistance
71 Arts, Entertainment, and Recreation
72 Accommodation and Food Services
81 Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

FUNDING

The Census Bureau funds most of the surveys. However, a number of surveys are paid for either fully or partially by other Federal Government agencies or private trade associations. A few surveys are mandated, but all are authorized by Title 13 of the United States Code.

RELIABILITY OF DATA

Survey error may result from several sources including the inability to obtain information about all cases in the survey, response errors, definitional difficulties, differences in the interpretation of questions, mistakes in recording or coding the reported data, and other errors of collection, response, coverage, and estimation. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to these nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is the imputing of data for nonrespondents, for late reporters, and for data that fail logic edits. Missing figures are imputed based on period-to-period movements shown by reporting firms. A figure is considered to be an impute if the value was not directly reported on the questionnaire, directly derived from other reported items, directly available from supplemental sources, or obtained from the respondent during the analytical review phase. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are suppressed or footnoted. The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

DATA REVISIONS

Statistics for previous years may be revised as the result of corrected figures from respondents, late reports for which imputations were originally made, or other corrections. Data that have been revised by more than 5 percent from previously published data are indicated by footnotes.

DISCLOSURE

The Census Bureau collects the CIR data under the authority of Title 13, United States Code, which specifies that the information can only be used for statistical purposes and cannot be published or released in any manner that would identify a person, household, or establishment. "D" indicates that data in the cell have been suppressed to avoid disclosure of information pertaining to individual companies.

EXPLANATION OF GENERAL TERMS

Capacity. The maximum quantity of a product that can be produced in a plant in 1 day if operating for 24 hours. Includes the capacity of idle plants until the plant is reported to be destroyed, dismantled, or abandoned.

Consumption. Materials used in producing or processing a product or otherwise removing the product from the inventory.

Exports. Includes all types of products shipped to foreign countries, or to agents or exporters for reshipment to foreign countries.

Gross shipments. The quantity or value of physical shipments from domestic establishments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale or use. Shipments of products purchased for resale are omitted. Shipments of products made under toll arrangements are included.

Interplant transfers. Shipments to other domestic plants within a company for further assembly, fabrication, or manufacture.

Inventories. The quantity or value of finished goods, work in progress, and materials on hand.

Machinery in place. The number of machines of a particular type in place as of a particular date whether the machinery was used for production, prototype, or sampling, or was idle. Machinery in place includes all machinery set up in operating positions.

Net receipts. Derived by subtracting the materials held at the end of the previous month from the sum of materials used during the current month.

Production. The total volume of products produced, including: products sold; products transferred or added to inventory after adjustments for breakage, shrinkage, and obsolescence, plus any other inventory adjustment; and products that undergo further manufacture at the same establishment.

Quantities produced and consumed. Quantities of each type of product produced by a company for internal consumption within that same company.

Quantity and value of new orders. The sales value of orders received during the current reporting period for products and services to be delivered immediately or at some future date. Also represents the net sales value of contract change documents that increase or decrease the sales value of the orders to which they are related, when the parties concerned are in substantial agreement as to the amount involved. Included as orders are only those that are supported by binding legal documents such as signed contracts or letter contracts.

Quantity and value of shipments. The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and returns. Shipments to a company's own branches are assigned the same value as comparable appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

Stocks. Total quantity of ending finished inventory.

Unfilled orders (backlog). Calculated by adding net new orders and subtracting net sales from the backlog at the end of the preceding year.

HISTORICAL NOTE

Data on selected electronic and associated products have been collected by the Census Bureau since 1961 on survey MA36N, Selected Electronics and Associated Products. In 1985, survey MA36N was divided into three annual surveys which are presently collected as: MA334P, Communication Equipment, Including Telephone, Telegraph, and Other Electronic Systems and Equipment; MA334Q, Semiconductors, Printed Circuit Boards, and Other Electronic Components; and MA334S, Electromedical and Irradiation Equipment (Including X-Ray).

Data on selected instruments and related products have been collected by the Census Bureau since 1961 on survey MA334B.

Beginning in 2005, MA334S, Electromedical and Irradiation Equipment, and a portion of data for MA334B, Selected Instruments and Related Products, will be published under a new survey titled MA334A, Electromedical Equipment and Analytical Instruments. Additional data for MA334B can be found on surveys MA334C, Control Instruments, MA334D, Defense, Navigational and Aerospace Electronics, and MA334T, Meters and Test Devices. Historical data may be obtained from Current Industrial Reports available at your local Federal Depository Library.